

PHENIX WEEKLY PLANNING



8/23/2012
Don Lynch

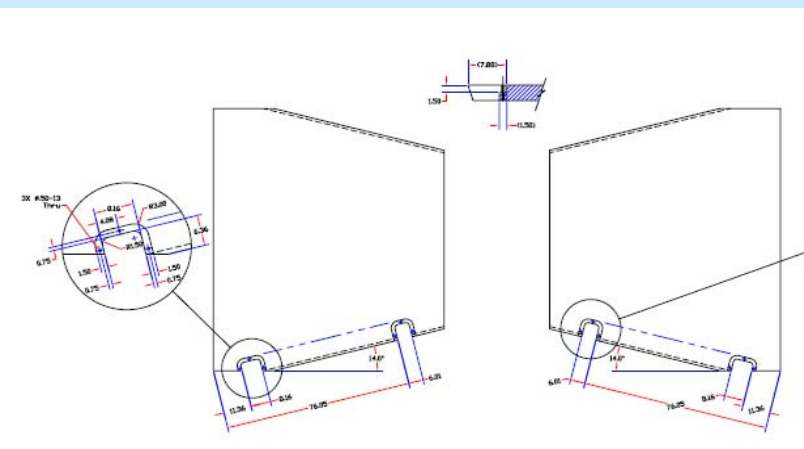
Last Week & This Week

TECHNICAL
SUPPORT
ZONE

- Disconnect Station 1 South cables and services - Done
- Repair & Upgrade station 1 quadrants - in progress
- VTX/FVTX Repairs at Chemistry/Physics - in Progress
- Repairs & Upgrades for MuTr Stations 2&3 N&S - in progress
- Remove MMN East vertical lampshade ?
- Prep for DC West - in progress
- sPHENIX design support
- MPC-Ex design support

Next Week

- Complete Repair & Upgrade of station 1S quadrants
- Re-install station 1 S MuTr quadrants
- Remove MPC South for repairs
- Repair hall probe in station 2 South
- VTX/FVTX Repairs at Chemistry/Physics
- Continue Repairs & Upgrades for MuTr Stations 2&3 N&S
- Remove MMN East vertical lampshade ?
- Prep for DC West - in progress
- sPHENIX design support
- MPC-Ex design support



VTX Installation 2010 & 2011. 2012 Removal and re-installation will be same.

TECHNICAL SUPPORT



RPC Station 1 North and South Cooling Upgrade

TECHNICAL SUPPORT ZONE



North



South



Looking towards RPC3 North
 ← East West →



Looking towards RPC3 South
 ← West East →

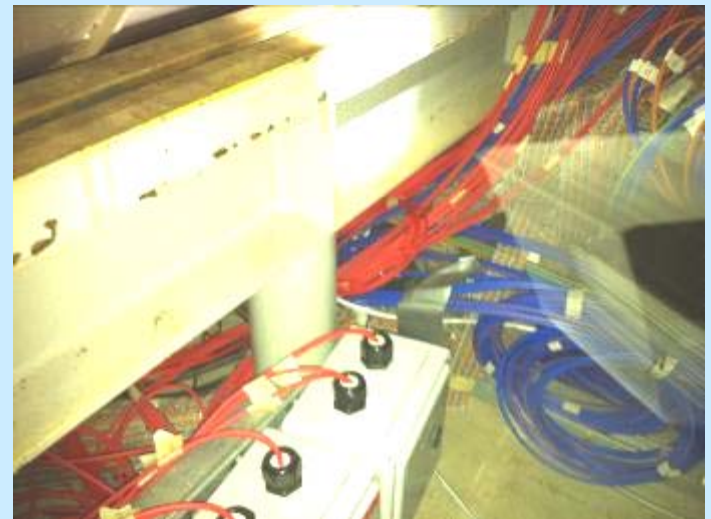
RPC Background Attenuation Project

TECHNICAL SUPPORT

Under DX at RPC3 North
 ← East West →

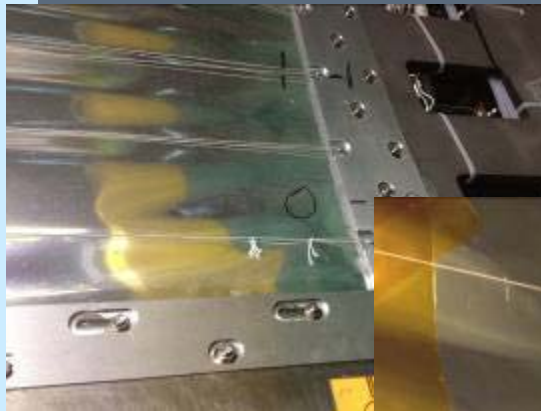
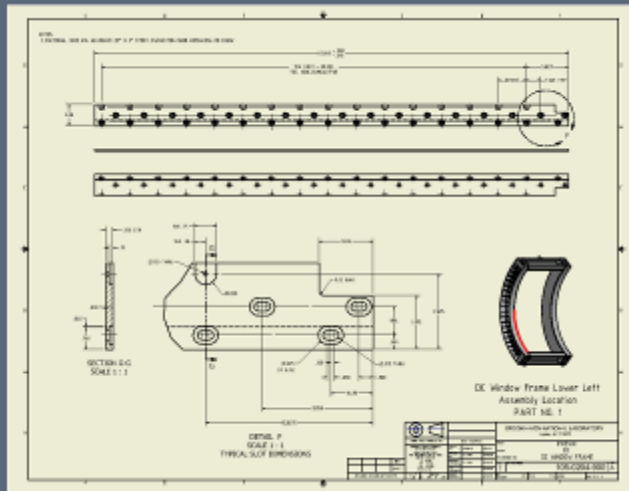


Under DX at RPC3 South
 ← West East →

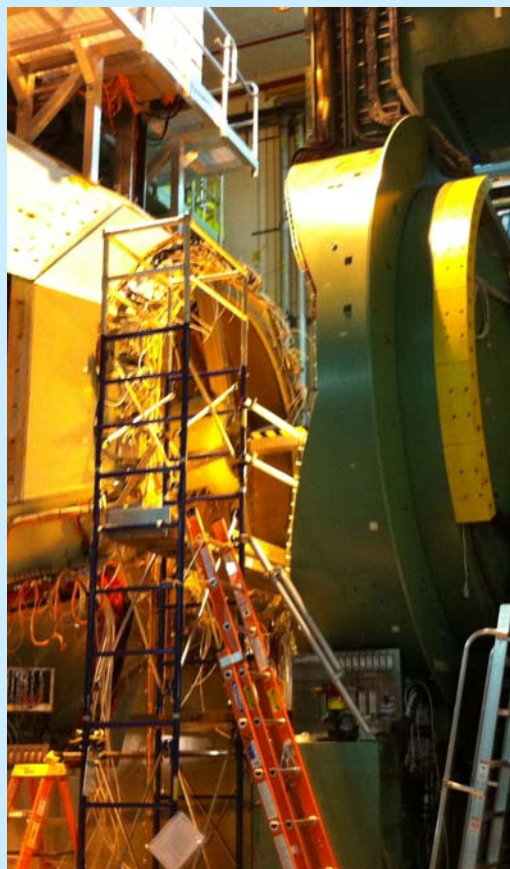
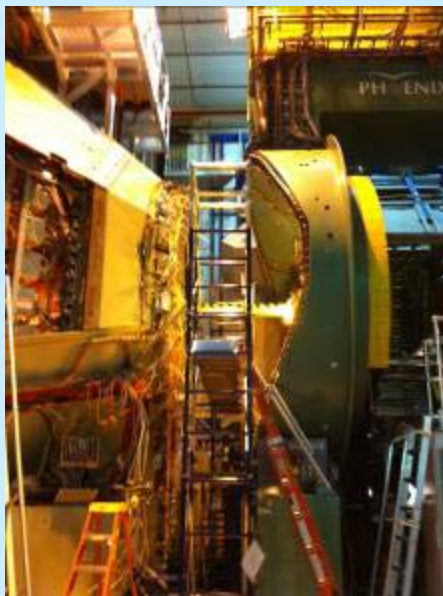


DC West Upgrade Design and measurements

TECHNICAL SUPPORT



- Station-1 South re-capacitation and termination



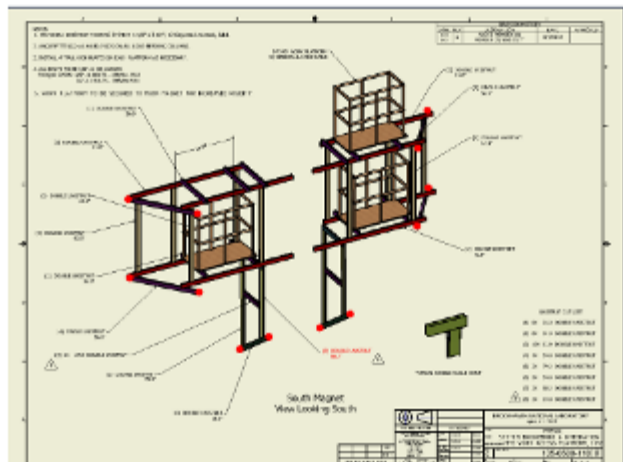
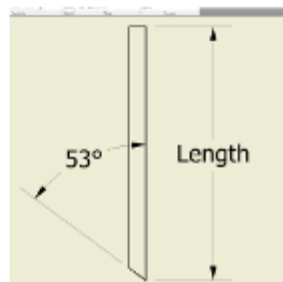
Clamp-on Terminator Installation on North & South Station-3

- Lower clamp-on terminators already installed for both north and south sta-3 (bottom 4 octants)
- With new work platforms that reaches all of sta-3; install remaining (upper) clamp-on terminators.



MUON MAGNET SOUTH UNISTRUT CUT LIST

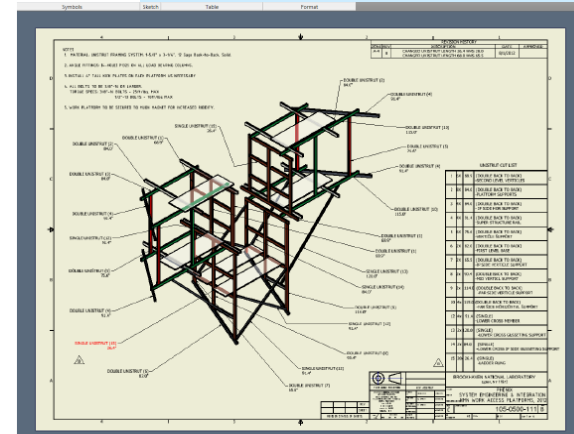
- (1) 8X 36.0 DOUBLE UNISTRUT
- (2) 8X 91.0 DOUBLE UNISTRUT
- (3) 10X 62.0 DOUBLE UNISTRUT
- (4) 4X 56.0 DOUBLE UNISTRUT
- (5) 2X 79.2 DOUBLE UNISTRUT x 53°
- (6) 2X 56.0 DOUBLE UNISTRUT
- (7) 2X 58.2 DOUBLE UNISTRUT x 53°
- (8) 2X 24.8 DOUBLE UNISTRUT



MMS Work Platforms

MUON MAGNET NORTH UNISTRUT CUT LIST

- (1) 6X 68.9 (DOUBLE BACK TO BACK)
-SECOND LEVEL VERTICLES
- (2) 8X 84.0 (DOUBLE BACK TO BACK)
-PLATFORM SUPPORTS
- (3) 4X 84.0 (DOUBLE BACK TO BACK)
-IP SIDE HOR SUPPORT
- (4) 4X 91.4 (DOUBLE BACK TO BACK)
-SUPER STRUCTURE RAIL
- (5) 6X 75.6 (DOUBLE BACK TO BACK)
-VERTICLE SUPPORT
- (6) 2X 82.0 (DOUBLE BACK TO BACK)
-FIRST LEVEL BASE
- (7) 2X 68.0 (DOUBLE BACK TO BACK) x 53°
-IP SIDE VERTICLE SUPPORT
- (8) 2x 90.4 (DOUBLE BACK TO BACK) x 53°
-MID VERTICLE SUPPORT
- (9) 2x 114.0 (DOUBLE BACK TO BACK) x 53°
-FAR SIDE VERTICLE SUPPORT
- (10) 4x 115.0 (DOUBLE BACK TO BACK)
-FAR SIDE HORIZONTAL SUPPORT
- (12) 4x 91.4 (SINGLE)
-LOWER CROSS MEMBER
- (13) 2x 120.0 (SINGLE)
-LOWER CROSS GUSSETING SUPPORT
- (14) 2x 84.0 (SINGLE)
-LOWER CROSS IP SIDE GUSSETING SUPPORT
- (15) 20x 26.4 (SINGLE)
-LADDER RUNG

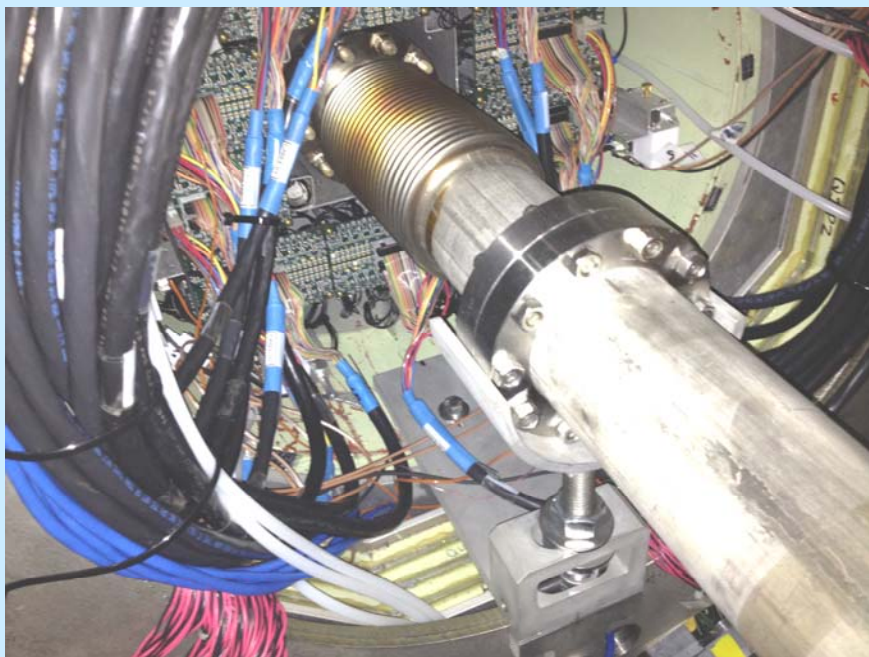


MMN Work Platforms

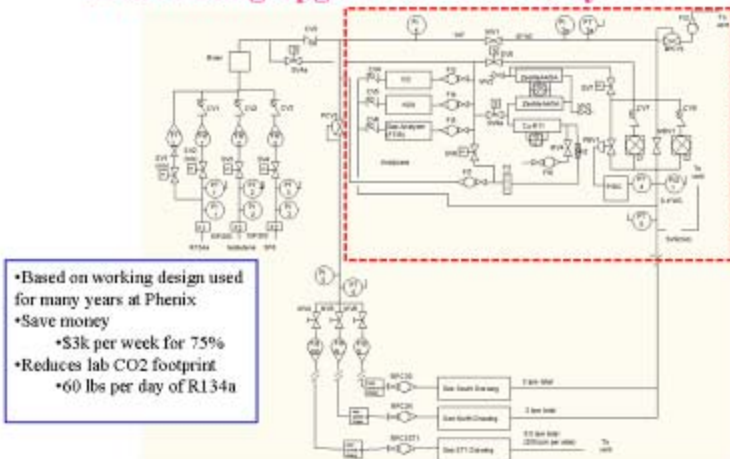
Design Approval Done, Bargaining Unit Agreement Approved

MPC Repairs -

North MPC Removed for Evaluation



Run 12 Shutdown Work Overview Gas/Cooling Systems Recirculating Upgrade to RPC Gas System



- Based on working design used for many years at Phenix
- Save money
 - \$3k per week for 75%
- Reduces lab CO2 footprint
 - 60 lbs per day of R134a

June 20, 2012

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RPC Recirculation Upgrade

VTX/FVTX Cooling Upgrade



MuID Collar IR Holding Area Support



Structural support improvements designed

Parts to be ordered

Installation this fall prior to EC roll in

New Electrical Work for 2012 Shutdown, to be accomplished as time is available

1. Add Transient Surge Suppressor to 3 phase power panel on the Central Magnet Bridge.
2. The Gas Mixing House Breaker Panel for the Gas Mixing side is almost out of spare breaker slots and needs to be reviewed for increased capacity panel to replace it.
3. New computer rack replacements/additions for upcoming Run 13 & Rack Room computer infrastructure changes involving power distribution circuit (UPS and normal AC power) re-work - check with Martin Purschke

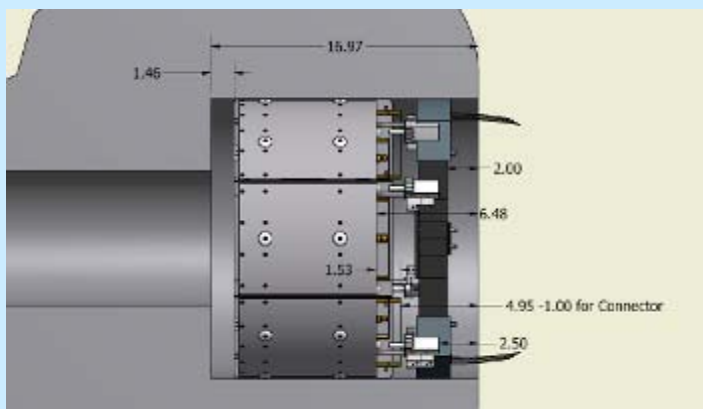
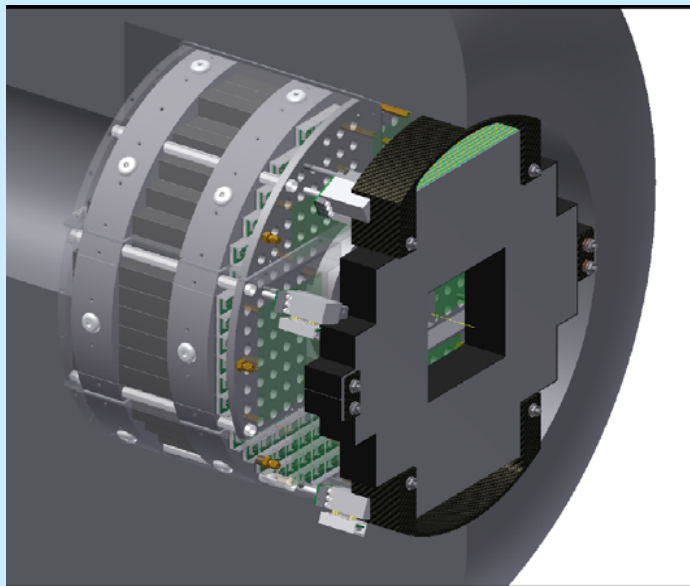
Additional Work for 2012, not yet scheduled, to be fit in as available

1. Replaced aging magnet hoses (CM only)
2. identify obsolete services passing through sill and remove them.
3. Cover for services coming from IR through sill.
4. Plan for stripping out TEC electronics and services to free up TEC racks.
5. Add limit switch and improved spooling control for window washer cable.

PHENIX Shutdown 2012 Electronics Upgrade /Repair

TECHNICAL
SUPPORT
2012

- Replace remaining RS-485 type ADAMs on West carriage with MODBUS/TCP type.
- Install Ethernet switches and MODBUS/TCP ADAMs on Central Magnet arm.
- Install second MODBUS server in counting house.
- Install MTP patch bay and jumpers for FVTX in counting house.
- Add several backup MTP fibers from CH to IR

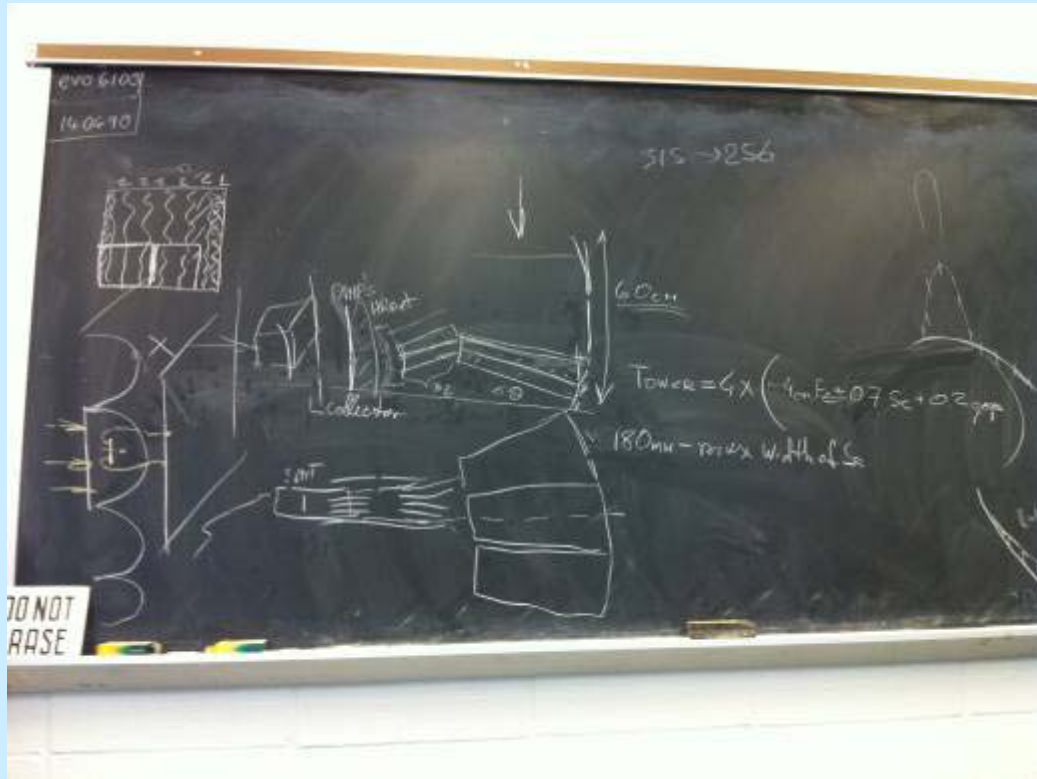


MPC-Ex Upgrade

We will be making measurements and test fitting mockups this summer in preparation for design and fabrication next fall, if proposed upgrade is approved



North MPC 07/25/12



Requested CAD Support for 2012 Shutdown

TECHNICAL SUPPORT 2012

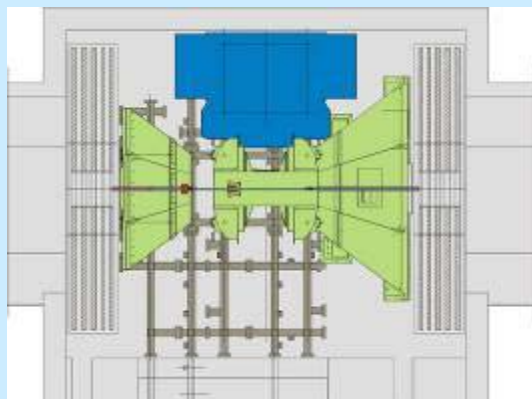
- Carpenter - Assist with Station 1, MMS, MMN and DC West scaffolding and work platforms
- -7/23-Oct. 26 (2 weeks at beginning, 1 week at end, $\frac{1}{2}$ days at various intervals between)
- Articulated manlift - For removal and re-installation of MPC N - week of 10/16
- CAD Mech techs - remove and restore MMS and MMN lampshades - week of 7/23
- Survey - VTX/FVTX at Chemistry and PHENIX IR - 10/8-11/9
- Riggers - transport VTX/FVTX to IR from Chemistry - week of 10/29
- Carpenters and Riggers - erect and disassemble Summer Sunday dance floor - 8/1-8/7
- Riggers and Carpenters - restore dumbwaiter and ladder to EC - week of 11/26
- Riggers - Assemble shield wall and Install plug door - 12/26-12/28
- Blue Sheets and White Sheets - 12/3-12/21
- A/C evaluation and repairs, IR and rack room A/C's - complete by start of run 13

Procedures for Shutdown 2012

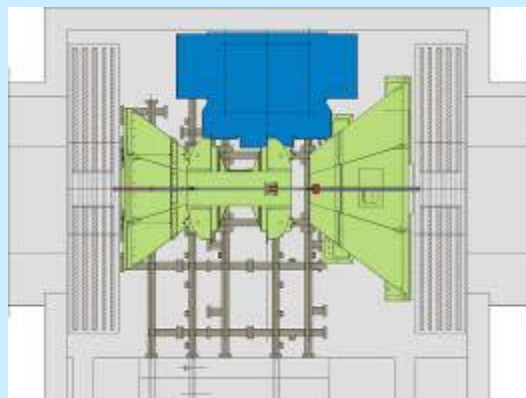
- Existing PHENIX General Purpose Recurring Task procedures - on line
 - VTX Removal - Done
 - FVTX/VTX installation - Done
 - VTX Survey - Done
 - FVTX Survey - Done
 - FVTX Cooling System Upgrades - Done
 - MuTr Maintenance & Upgrade (stations 1 2 & 3) - Done
 - MuTrigger Maintenance and Upgrade - Done
 - DC Repair - Incl. in WP
 - MPC removal and re-installation - incl in WP - Done
- Procedures will be part of 1 WP for VTX and FVTX
- Incl. in separate WP's for MMN and MMS entry

Work Permits for Shutdown 2012

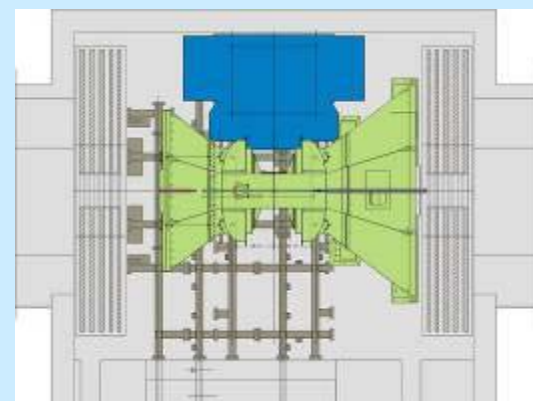
- Start of Shutdown (PHENIX) - Done
- VTX Removal/FVTX/VTX Installation - Approved
- MuTr/MuTrigger Maintenance and Upgrade 3 WP's:
Station 1, MMN and MMS work - at CAD for Approval
- RPC1 Cooling Upgrade (PHENIX) - Done
- DC West Repairs - in Design
- MPC repairs - Approved
- End of Shutdown (PHENIX)



CM is currently moved north to gain access to station 1 south. Work on RPC1 South, DC West, MPC South and MuTr Station 1 South.



After all work finished move CM south, reinstall MPCN complete RPC1 North work, survey step 1 for beampipe,



Move CM north complete beampipe and CM survey. Move MMS North to run position. VTX/FVTX work may be done in any configuration.

TECHNICAL SUPPORT 2012

Remove VTX/FVTX and transport to Chemistry Lab	Done
Remove MMS & MMN vertical East lampshades	In Progress
Summer Sunday (8/5) Prep and teardown	Done
Summer Sunday (RHIC)	Done
MuTr South Station 1 work	
Install access (Sta. 1 work platforms)	Done
Disconnect Cables, hoses etc, ID/label all	In Progress
Remove FEE plates and chambers	Done
Station 2 Terminators and manifold upgrade through access opened by station 1 removal	8/24
Station 2 South Hall probe repair	8/24
MPC South repairs	8/20-9/15/2012
RPC 1 South cooling upgrade	8/20-9/15/2012
Labor Day Holiday	9/3/2012
MuTr South Station 1 work (Cont'd)	
Clean/install new MuTr Sta. 1 chamber parts and upgrades (concurrent At RPC Factory)	Done
Re-install chambers and FEE plates	8/27-9/5
Re-cable, re-hose and test	9/5-9/21/2012
re-capacitation and air manifold upgrades	
Station 3 North and South (upper half)	7/23-9/30/2012

TECHNICAL SUPPORT ZONE

Repair upgrade, reassemble VTX/FVTX

In Progress

Test, survey (at Chemistry and IR) and re-install VTX/FVTX

10/5-10/31/12

Substation breaker upgrade/test (CAD)

8/20-9/30

DC West maintenance (replace window)

9/15-10/15

RPC stations 1 and 3, north and south maintenance

As required

Other detector maintenance as required

As required

Infrastructure maintenance as required

As required

TBD prototype tasks

As required

Open Station 1 North, re-install MPC North

10/16-10/26/2012

RPC1 North Cooling upgrade (if not completed earlier)

10/16-10/26/2012

Veterans Day Holiday

11/12/2012

Pre-run commissioning and prep for run 13

11/1-12/31/2012

Prep for EC roll in

11/12-11/16/2012

Roll in EC

11/19-11/23/2012

Thanksgiving Holidays

11/22-23/2012

Prep IR for run

11/26-12/3/2010

Pink/Blue/White sheets

12/3-12/21/201

Christmas Holidays

12/24-25/2012

Start run 13

1/1/2013

From Ray Karol:

Per BNL instructions, ladder inspections can only be done by trained engineers and safety people (both must do it together and fill out a checklist with OSHA rules for ladders, i.e. dimensions, etc.). The only acceptable training is given by the BNL Central ESH Division.

After the documented inspection the ladder is either:

- Tagged not to be used if it failed inspection and red painted at the top and bottom of the ladder where it can be entered. Do not use these ladders
- Tagged with a yellow caution tag listing the problems found during the inspection, painted yellow at the top and bottom entry points. We have a standing annual work permit for all to read and sign on how to use these ladders safely which explains how to use the ladders. Climbing yellow painted ladders cannot be done anymore as worker planned work.
- Passed completely and painted green at the top and bottom entry points. These can be used without any work permit by physically fit workers!!

Ladders that are unpainted have not yet been inspected and may not be used in accordance with BNL policy until inspected and approved.

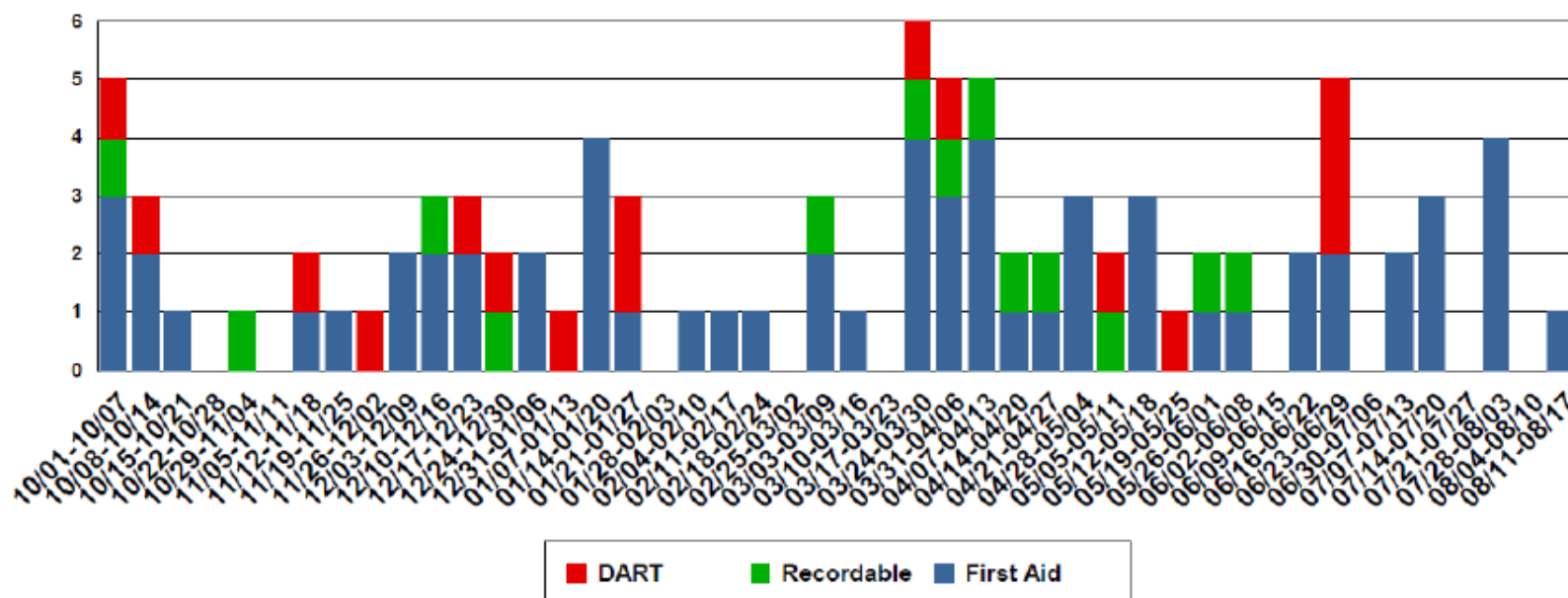
Always use 3 points of contact when climbing or descending any ladder.

Fixed ladders are not to be used to work from.

C-AD and IFN North staff have about 10 to 12 people doing these inspections and trying to solve any violations on the yellow ladders as fast as they can. It is going to take a long time. We have given our priorities to C-AD.



Injuries Per Week (FY) As of 8/17/2012



Injury Status:

FY12 YTD: DART – 16, TRC – 29, First Aid – 62

FY11: DART – 27, TRC – 42, First Aid – 45

FY10: DART – 19, TRC – 33, First Aid – 52

FY12 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx>

Recent Injuries

8/14/12	First Aid	An employee was bitten on the hand by an unknown insect. He reported to the OMC and received first aid (over the counter medication) and was sent home. (Event Link)
7/30/12	First Aid	An employee was re-opening a crate to retrieve equipment that he had packed at an earlier date and experienced throat irritation though there was no odor. At the OMC, he was examined and returned to normal duties. (Event Link)
1/23/12	DART	UPDATE: An employee injured his arm while pulling on a wrench. Employee had a positive MRI and is going to PT, making this Recordable. On 7/31/12, employee was promoted to a new job, but needed restrictions for that job.

Recent Events		
8/14/12	Non-Reportable	Unsecured gas cylinders were discovered on the loading dock at Bldg. 510. One of the cylinders was empty; the other was not. The rack at the loading dock was full. SHSD was notified, and the cylinders have been secured. (Event Link)

Where To Find PHENIX Engineering Info

August 23rd This Day in History:

- 79 Mount Vesuvius begins to Erupt on the feast day of Vulcan, Roman god of fire
- 1305 William Wallace (Braveheart) executed for high treason by Edward I
- 1617 First One-way streets (London)
- 1784 Western North Carolina secedes from NC and declares itself a new state, called "Franklin". Lasts for 4 years then becomes part of Tennessee
- 1833 Slavery abolished in British Colonies
- 1889 First wireless message ship-to-shore
- 1923 First mid air refueling
- 1927 Sacco and Vanzetti executed in Boston
- 1985 Titanic shipwreck found
- 1996 Osama bin Laden declares war on Americans occupying the land of the two holy places

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

